

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF OHIO
WESTERN DIVISION**

CINCINNATI INSURANCE COMPANY,
et al.

CASE NO. 1:06cv130

Plaintiffs

JUDGE MICHAEL R. BARRETT

-VS-

GENERAL ELECTRIC COMPANY,
et al.

Defendants.

OPINION AND ORDER

This matter came on for bench trial on July 16 and 17, 2007 pursuant to Plaintiffs' Consolidated Complaint (Doc. 2) and Defendant, Apollo Wire & Cable Co. LTD. (hereinafter, "Apollo" or Defendant), Answer (Docs. 18 and 19) thereto.¹

In January, 2004 Plaintiff, Donna Metz, an insured of Plaintiffs Cincinnati Insurance Company and State Farm, suffered the loss of physical property due to a fire at her barn. Plaintiffs allege that the fire occurred as a result of a defect in design causing the ignition of the cube-tap of Defendant's extension cord. The Defendant asserts while the cause of the fire was electrical in nature, the origin was unknown.

I. **INTRODUCTION**

1. **The Issues.**

The Court is called upon to weigh the testimony of the expert witnesses presented by the parties in conjunction with fact witnesses' testimony and to determine if Plaintiffs can

¹All other defendants were dismissed before trial pursuant to a stipulation of dismissal (Doc. 45).

establish by the preponderance of the evidence, both direct and circumstantial, that Defendant's extension cord was defective in design. See O.R.C. §2307.73 and 2307.75. A product is defective in design or formulation when the product is more dangerous than an ordinary consumer would expect when used in an intended or reasonably foreseeable manner. O.R.C. §2307.75 (2004). If the extension cord was used in a manner that it was intended to be used and it was more dangerous than an ordinary customer would expect, then the Plaintiffs have proved the existence of an ordinary defect. The party who seeks to recover for damages must prove not only that the product was defective but also that such defect was the proximate or the direct cause of the damage. O.R.C. §2307.73. In order to prove proximate or direct cause a plaintiff must offer proof, by a preponderance of the evidence, that the allegedly defective condition was the most probable cause of his or her injuries or losses. *Donegal Mut. Ins. v. White Consol. Indus.*, 166 Ohio App. 3d 569, 577 (Ohio Ct. App. 2006) *citing Fogle v. Cessna Aircraft Co.* (Jan. 16, 1992), Franklin County App. No. 90AP-977, 1992 Ohio App. LEXIS 158.

2. Overview.

The fire occurred on January 13, 2004 on the property of Donna Metz, in a seven stall garage and storage barn located on her property at 7608 Schradin Road, Okeana, Ohio. (Exh. 3). In addition to smoke damage within the garage itself, Donna Metz' Ford F350, 2000 model crew-cab diesel truck was completely destroyed. Donna Metz lives on the property with her husband Robert and the garage-barn was built by her son, Brian who owns Southwest Ohio General Contractors. He has been in the contracting business for 25 years.

As stated above, the Court is called upon to determine, if possible, by a

preponderance of the evidence, whether the fire initiated in the Defendant's extension cord. The determination of origin and cause of a fire are often a process of elimination.

First the investigator must examine the scene and artifacts of the fire and by a process of elimination, determine the origin in single origin fires or origins in multiple origin fires. Once the investigator has determined the origin(s) then the point(s) of origin is examined to determine the possible causes of ignition and sources of fuel. The investigator will reach the above conclusions, where possible, by a review of available physical evidence and comparisons with established fire facts and principles such as fuel sources, coloration (discoloration), burn patterns, condition of electrical systems and the like. The origin and cause of a fire are not always determinable.

Both Plaintiffs and Defendant's experts agree that the fire was electrical in nature. Plaintiffs' expert, however, concluded that the origin of the fire was in the front bumper - grille area of the Ford F350 truck while Defendant's expert concluded that the origin could only be limited to the engine compartment and he further ruled out the front bumper area. Not being able to determine the exact origin of the fire, Defendant's expert was unable to determine the cause other than electrical in nature and thus indicated that the origin was undetermined.

3. Stipulation.

The parties agree that the experts who testified were qualified to testify in their respective areas of expertise without objection.

II. FINDINGS OF FACT

1). The fire occurred on January 13, 2004 at the residence of Plaintiff Donna Metz, 7608 Schradin Road, Okeana, Ohio. Donna Metz' Ford F350, 2000 model crew-cab diesel

truck was destroyed in the fire. 2). This vehicle had a factory installed block heater with a power cord² that extended approximately 1 and ½ inches out from the grille area of the truck. 3). On January 11, 2004 Donna Metz used one of Defendant's extension cords to supply power to the block heater power cord. 4). Prior to January 11, 2004, she had used other manufacturers' extension cords on multiple occasions without incident. 5). The extension cord in question was purchased on July 2, 2001 in a bundle of twenty Apollo extension cords from a Sam's store. They were purchased for the benefit of Southwest Ohio General Contractors by Donna who ran the business office for her son at Southwest Ohio General Contractors. 6). These extension cords were typically used on construction jobs where they would be protected from the elements by being propped up and covered. 7). When not in use the group of extension cords had been kept out the elements at Southwest Ohio General Contractors' office. 8). More than half of the Apollo cords purchased at Sam's had problems including at least one other fire. 9). Donna Metz borrowed a previously unused extension cord from her son on January 11, 2004. The cord in question was still in its original packaging when Mrs. Metz utilized it the same day and was in the same condition as it was when it left the manufacturers control.

10). On Sunday January 11, 2004, Mrs. Metz backed her truck into the garage, turned off the lights, took the keys into the house and left nothing on in the truck making sure that both the receptacle and the power cord blades were clean before engaging them with each other. 11). On Monday morning she had occasion to be in the garage but noticed nothing unusual. 12). Tuesday morning Mrs. Metz went to the garage and found

² During the course of the trial the block power cord was sometimes described as the "black" cord and the extension cord was described as the "yellow" cord.

the garage door would not open and she noticed materials hanging from the gutter and saw smoke. Opening a second garage door she encountered flames in her truck whereupon she emptied a fire extinguisher in the direction of the flame but was forced from the garage because of smoke.

13). As a result of the burn pattern's appearance and the type and extent of damage to certain parts of the engine compartment of the vehicle, the ignition source is determined to be on the front bumper where Mrs. Metz placed the extension cord and power cord connectors to rest. 14). The path that the fire traveled was up and through the plastic grille, the plastic headlight shrouds and into the engine compartment where it spread to the hoses, belts and tires and eventually worked its way through the firewall into the passenger compartment. 15). The male ends of the block power cord had no evidence of neglect, abuse or defect and are eliminated as a cause of the fire. 16). High resistance heating can be caused by contamination, moisture, debris, abuse or improper fit. 17). An examination of the cube-tap, together with the testimony of the witnesses as to its condition, eliminated all but improper fit. 18). About one and one-half inches from the connection, the block power cord was severed and beaded. The arcing on the block power cord was at the grille area. Beading occurred at the male stabs which showed no evidence of prior abuse other than normal wear. 19). The damage to the block heater cord is consistent with the fire moving in a front to rear pattern of travel and the yellow extension cord was arced twenty-two inches from the cube-tap consistent with the burn pattern. There was beading in both the black and the yellow cords. 20). The condition of the block power cord and the extension cord show that the problem began at the connection and did not emanate from either end. The center receptacle of the cube-tap

was hotter than the side receptacles indicating the heat source and the origin of the fire at the cube-tap. A comparison of the black power cord and the yellow cube-tap indicate that the fire began in the cube-tap. 21). Brian Metz delivered exemplar cords from the batch of twenty to Plaintiffs' origin expert, David E. Jansing. Plaintiffs' causation expert, Alan Truax examined the exemplar cords (Pl. Exhs. 10, 11 and 12) and found evidence of high resistance heating from poor connections. 22). Plaintiffs' expert, Truax eliminated all possible causes except the female end of Defendant's plug. 23). The design of the yellow cube-tap did not provide enough pressure and surface area contact between the receptacles and the male prongs. 24). High resistance heat, as a result of the poor connection between the yellow extension cord and the black block-power cord caused the fire.

III. CONCLUSIONS OF LAW

In order to establish the elements of a products liability design defect claim, a plaintiff must show that: 1) there was a defect in the product manufactured and sold by the defendant; 2) the defect existed at the time the product left the defendant's control; and 3) the defect was the direct and proximate cause of the plaintiff's injuries or losses. *State Farm Fire & Cas. Co. v. Chrysler Corp.* (1988), 37 Ohio St.3d 1, 5-6, 523 N.E.2d 489. As stated above, the origin of the fire is determined by a preponderance of the evidence which is determined by this Court to be in the extension cord cube-tap. Pursuant to O.R.C. §2307.73 (2004).

A. A manufacturer is subject to liability for compensatory damages based on a product liability claim only if the claimant establishes, by a preponderance of the evidence, both of the following:

1. Subject to division (B) of this section, ... the product in question

was defective in design or formulation as described in Section 2307.75 of the Revised Code, ...

2. A defective aspect of the product in question as described in division (A)(1) of this section was a proximate cause of harm for which the claimant seeks to recover compensatory damages.

Product defects may be proven by direct and/or circumstantial evidence. O.R.C. §2307.73(B). The extension cord in question did not have sufficient pressure or surface area contact resulting in High Resistance Heat and causing combustion in the cube-tap. A product is defective in design or formulation if it is more dangerous than an ordinary consumer would expect when used in an intended or reasonably foreseeable manner. O.R.C. §2307.75(A)(2) (2004).³

Mrs. Metz' use of the Defendant's extension cord was certainly a reasonable foreseeable use. She, in fact, used it for its very intended use. In this case there is evidence of the use of other manufacturers' extension cords without high heat resistance (Finding of Fact No. 4) and there is further evidence of multiple uses of the Defendant's extension cords resulting in high heat resistance connections. (Finding of Fact No. 13).

As stated above, a product is defective under Ohio law if it is more dangerous than an ordinary consumer would expect. O.R.C. §2307.75(A)(2)(2004). Moreover, "the determination of whether a product is more dangerous than an ordinary person would expect is generally a question of fact which does not require expert testimony." *Hisrich v.*

³ The consumer-expectation test was deleted from this statute in 1996 as part of the Tort Reform Act (Am. Sub. H.B. 350); however, that Act was found to be unconstitutional by the Ohio Supreme Court in *State ex rel. Ohio Academy of Trial Lawyers v. Sheward* (1999), 86 Ohio St.3d 451. Thus, the consumer-expectation test was reinstated for the period of time at issue in this case. The current Ohio statute omits the consumer-expectation test but does include it as a factor to be considered in determining foreseeable risk.

Volvo Cars of N. Am., Inc., 226 F.3d 445, 455 (6th Cir. 2000) *citing Fisher v. Ford Motor Co.*, 13 F. Supp. 2d 631, 638 n.10 (N.D. Ohio 1998). “When determining whether a product is more dangerous than an ordinary consumer would expect, ‘evidence of unsafe, unexpected product performance is sufficient to infer the existence of a product defect.’” *Clay v. Ford Motor Co.*, 215 F.3d 663, 671 (6th Cir. 2000) quoting *State Farm Fire & Cas. Co. v. Chrysler Corp.*, 37 Ohio St. 3d 1, 523 N.E.2d 489, 495 (Ohio 1988). Thus, the resulting high resistance heat was certainly more dangerous than an ordinary consumer would expect.

A party who seeks to recover for damage must prove not only that the product was defective, but also that such defect was a proximate or direct cause of the damage. O.R.C. §2307.73(A)(2). In order to prove proximate or direct cause a plaintiff must offer proof, by a preponderance of the evidence, that the allegedly defective condition was the most probable cause of his or her injuries or losses. *Donegal Mut. Ins. v. White Consol. Indus.*, 166 Ohio App. 3d 569, 577 (Ohio Ct. App. 2006) *citing Fogle v. Cessna Aircraft Co.* (Jan. 16, 1992), Franklin County App. No. 90AP-977, 1992 Ohio App. LEXIS 158. The receptacle contacts of the extension cord did not have sufficient pressure or contact surface area for the black power cord blades which resulted in high resistance heating leading to ignition and fire thereby causing the damage to the Metz’ vehicle and barn.

VI. CONCLUSION

Thus, the Court finds for the Plaintiffs as they have shown, by a preponderance of the evidence, that the extension cord was defective in design as it was more dangerous than an ordinary consumer would expected when used in its intended manner and that the

defective aspect of the extension cord was the proximate cause of the damage.⁴

IT IS SO ORDERED.

s/Michael R. Barrett
Michael R. Barrett, Judge
United States District Court

⁴It is the understanding of the Court that an agreement has been reached as to the amount of damages. If further Court intervention is necessary to determine damages a separate analysis will be conducted.